

Abstract of the Disclosure

A method and apparatus are described for protecting cache lines allocated to a cache by a run-ahead prefetcher from premature eviction, preventing thrashing. The invention also prevents premature eviction of cache lines still in use, such as
5 lines allocated by the run-ahead prefetcher but not yet referenced by normal execution. A protection bit indicates whether its associated cache line has protected status in the cache or whether it may be evicted.

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